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**WE ARE PART OF REAL LIFE SITUATIONS.
REAL MOMENTS. REAL CONVERSATIONS.
REAL EMOTIONS. WITH REAL PEOPLE INVOLVED.
FOCUSED ON TODAY AND TOMORROW.**

Product photography is an integral part of our Motorola Solutions brand, and therefore, must complement our brand purpose and visual style. We strive for our product images to be authentic, dynamic, clean, and beautiful - visually capturing the uncompromising performance and quality that our products deliver to our customers.



TECHNICAL GUIDELINES



BASIC REQUIREMENTS

Background

To easily remove (clip) the background from the final image, use white, black, gray or chroma key background.

Lenses

Do not use a wide angle lens, as it distorts the image. Images need to be an accurate representation of the device.

ISO

Use of a high ISO introduces noise and compromises the quality. As such, images shot with an ISO above 400 are not permitted.

To successfully achieve a sharp image with a lower ISO setting, use a tripod. This will allow you to use a slower shutter speed while capturing a sharp image.



LIGHTING AND PRODUCT TEXTURE

Always use soft or bounced light to:

- Create depth of field and flattering texture.
- Avoid enhancing product texture.
- Avoid flares and light source reflection.
- Avoid harsh shadows.
- Illuminate emsignia/wordmark with even light to avoid shadows, glares and reflection.

1. The soft light is flattering, highlights the contours of the device, and eliminates harsh shadows and glares. It also doesn't over-emphasize the texture of the device.
2. The lighting in this image is harsh resulting in shiny texture. The depth of field makes the antenna an unrecognizable blur. Also, the color balance is off.
3. The lighting in this photo creates strong shadows that make the buttons at the top unrecognizable. Color balance is off.
4. The glare caused by the light source is visible on the display and results in an almost unrecognizable emsignia (batwing). Further, the screen shot should be added in post, never shot on the device.

GOOD IMAGE



BAD IMAGES



PRODUCT COLOR AND EXPOSURE

For consistent color and correct exposure:

- Use the White Balance (WB) setting that matches your light source to avoid incorrect and inconsistent color.
- Use a color calibrated computer monitor/ screen to ensure the color of the image is identical to the actual product.
- Always use a gray or color correction card to ensure correct WB, and thus, color.
- Use a light meter.

GOOD IMAGE



1

BAD IMAGES



2



3

1. The first image has good exposure, color and texture (soft).
2. The image is overexposed. The radio looks more gray than black, and the sides are missing detail.
3. The radio is too dark. It was shot with harsh, unflattering light and does not accurately represent the color of the product. Most of the details are unrecognizable.

APERTURE AND DEPTH OF FIELD

- Straight, front-facing shots should be captured with a relatively small aperture to ensure the entire product is sharp, without enhancing texture.
- When shooting to highlight specific features/key selling points of the device, it may be appropriate to shoot with a wider aperture. This will draw the viewer's eyes to the feature/key selling point you are trying to highlight by blurring other parts of the product (utilizing Bokeh).
 - Use Bokeh to add a dramatic quality to the image.
 - Use Bokeh to draw your eye to the features within the sharp area.

GOOD IMAGES



1



2

BAD IMAGE



3

1, 2. These detail images are a good examples of an appropriate use of focus point and depth of field. The angle and blur make the image more dramatic and draw your eye to the top of the radio.

3. The bottom of the radio as well as the emsignia look blurry. Also, the cropping angle is not appropriate.

FINAL FILE REQUIREMENTS

File Type

TIFF

Depth of Color

16 bits

Color Mode

RGBs

Resolution

300 dpi

Image Compression

LZW

Save Transparency

Check/YES

Pixel Order

Interleaved (RGBRGB)

Byte Order

Macintosh

Layers

Just one

Please avoid adding any “background” layers

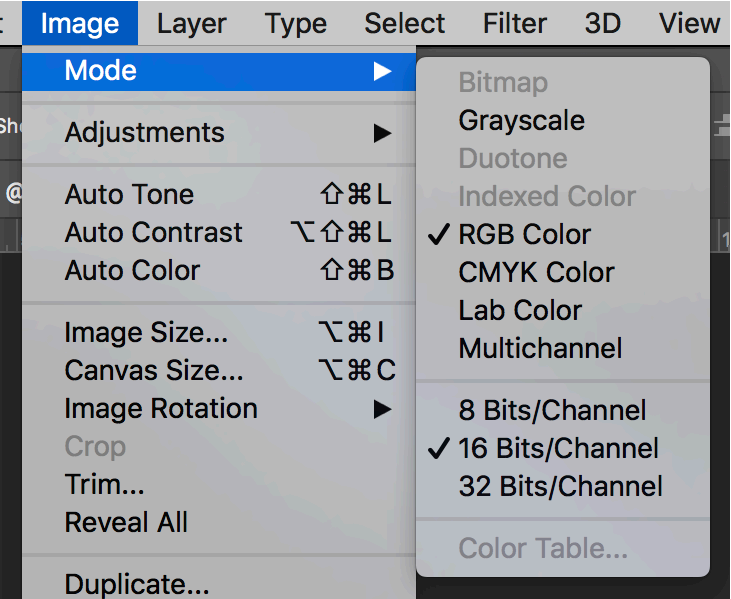
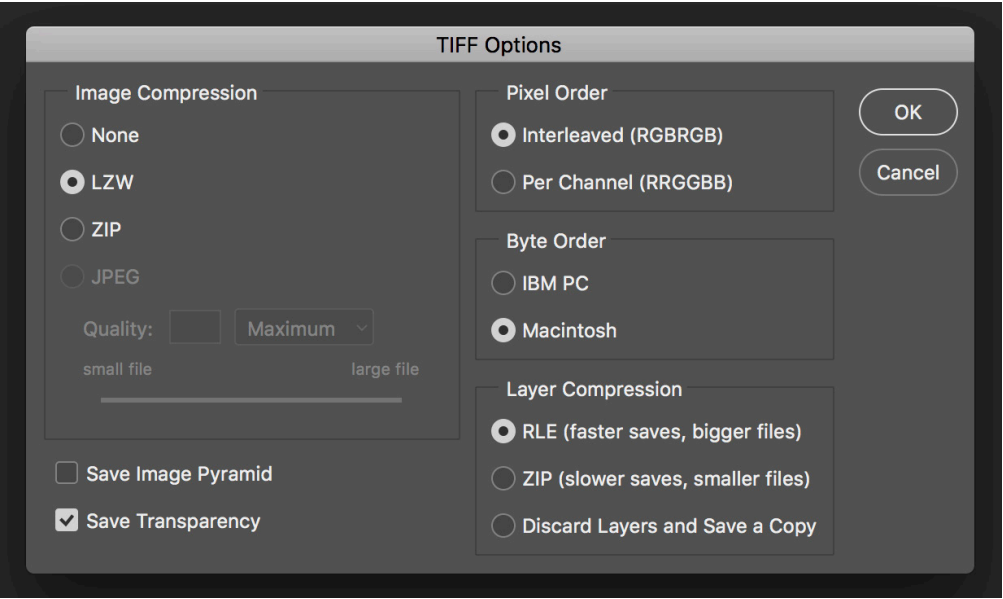
Metadata

To be provided by Motorola Solutions

Naming structure

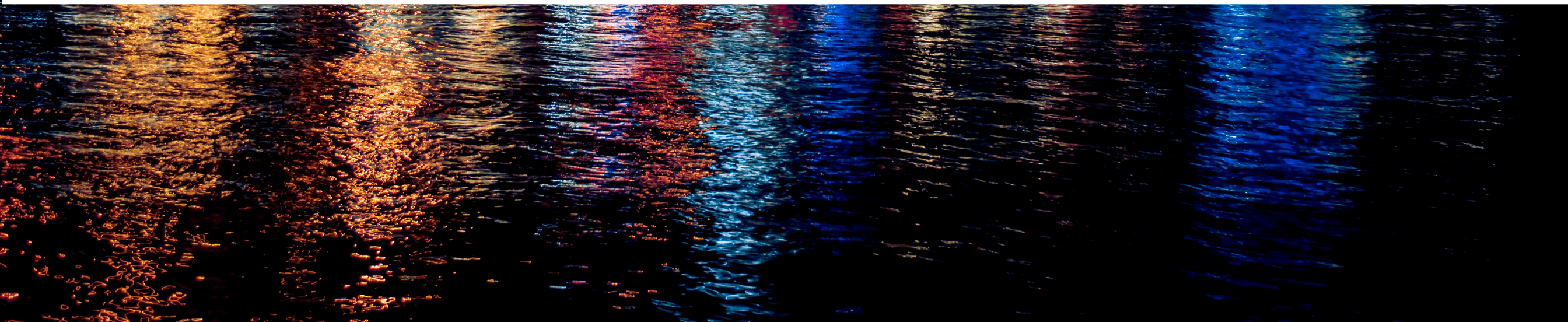
ProductName_Description_Sequence#_MMYY_YourInitials.tiff

- Agency:
ST7000_radio_front_02_1217_agency.tiff
- Internal:
ST700_radio_front_02_1217_yourinitials.tiff





DEVICE GUIDELINES



GETTING STARTED

- Inspect product upon arrival to determine how to shoot the product in the most flattering way.
- Treat engineering samples (usually labeled as such) with care, as they can easily peel and break.
- Carefully wipe product clean prior to shooting, blowing away any dust particles that may remain on the surface. Re-wipe and dust product clean when necessary (at a minimum, each time the product is touched).
- Angle permitting, all Motorola Solutions emsignias/wordmarks should be upright, including logos on accessories.

1. This depicts a visually appealing scene/composition. Turned toward each other, the products create a cohesive group.

GOOD IMAGE

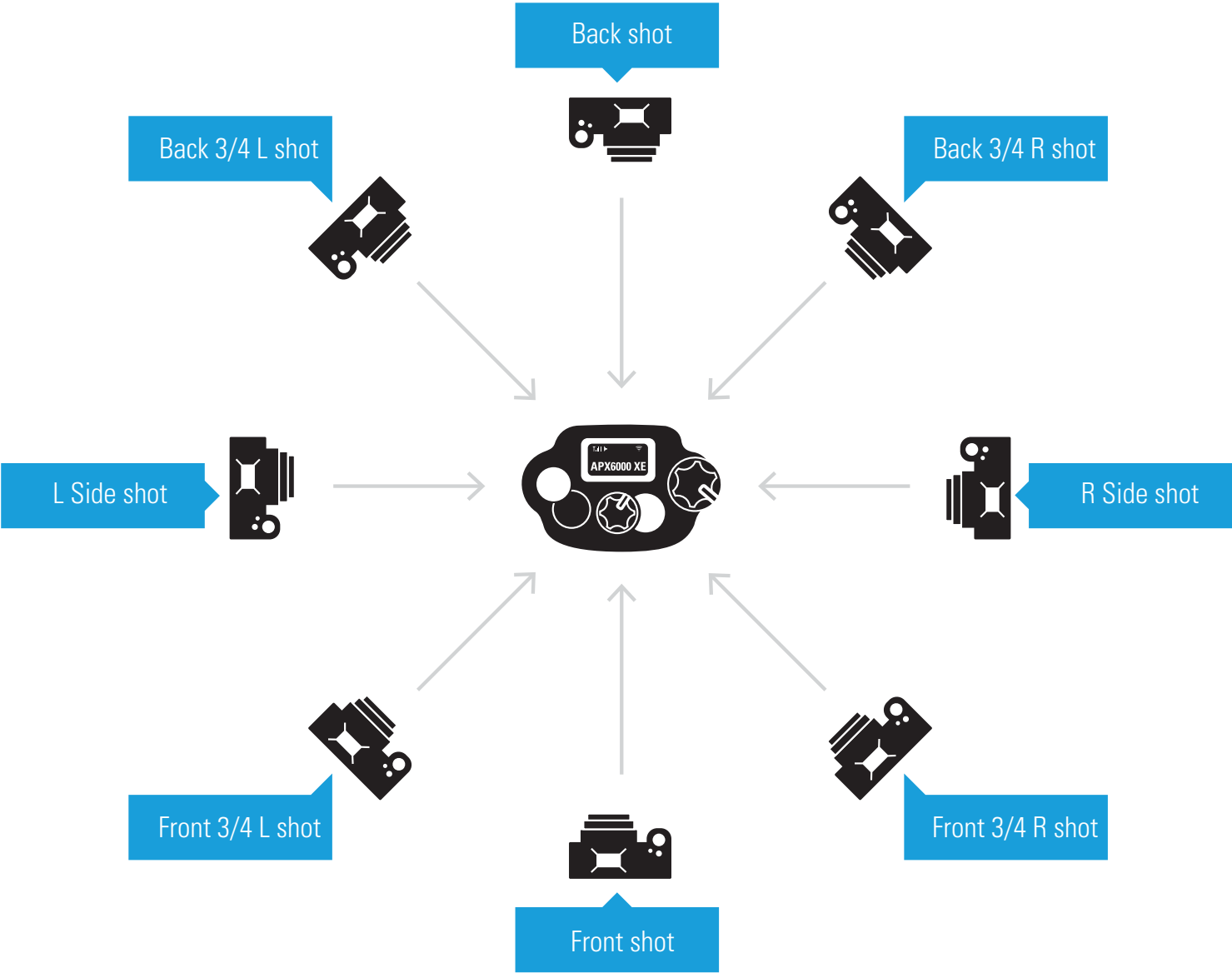


1

SHOT LABELLING

- The diagram to the right shows the top view of the product and the corresponding and appropriate naming for each one of the shots.
- Please note that this is just a representation for labeling purposes. You don't need to change to the position of the camera to achieve the same results. Just turn the object until you get the right angle.

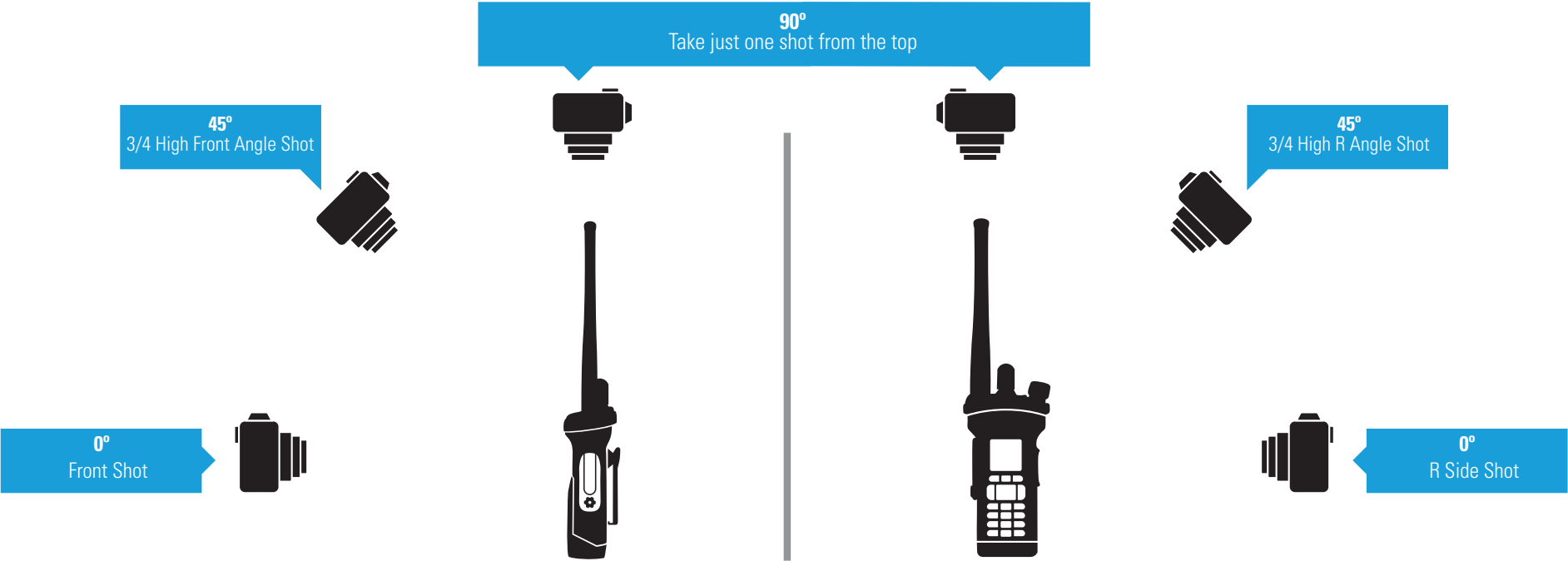
VIEW FROM THE TOP



CAMERA ANGLES

- The diagrams to the right shows a lateral and front view of a product shot. This is intended to demonstrate the different angles in which the camera can be positioned to obtain a different angle/view point from the object.

VIEW FROM THE SIDE // VIEW FROM THE FRONT



FLATTERING VS. UNFLATTERING ANGLES

Finding the right angle is a matter of exploring different positions of the camera and the product. No matter the angle choice, the product must always be presented in its best light, and look appealing.

- 1. The radio was shot from a front angle, making the radio look as it is. The lines are straight creating a uniform composition.
- 2. Image shooting downward makes the radio look fatter than it is. Also, WB is off; the body of the radio looks brown instead of black.
- 3. The image is framed awkwardly and there is no intentional focal point. The angle is also a distraction.

GOOD IMAGE



1

BAD IMAGES



2



3

SHOOTING MULTIPLE DEVICES

Keep it simple

Don't overcrowd the scene. Only include the necessary objects and distribute them as a group. Rotating the objects toward the center or to one side, as seen in the sample image, can work well and create a cohesive group.

Create a rhythm

Organize objects by size, color, or shape and experiment with different compositions and angles.

Define a focal point

Align your composition with the focal point of your group. It could be the entire object or just an area. Use framing and aperture to draw attention to the desired focal point.

Explore overlap

When composing your scene, it is OK to place objects in front of one another, but make sure both objects are visible (even partially). When setting your camera, make sure to choose the right aperture settings to avoid flattening the image.

Form connections

Objects in your composition should create "lines" that lead the eye around the image.

Lighting is critical

Adjust your light setting and illuminate all objects without creating harsh shadows on the background or on any objects within the composition.

1. This depicts a visually appealing scene/composition. Turned toward each other, the products create a cohesive group. The difficulty of including the RSM was handled by hiding the excess cable.

GOOD IMAGE



FAMILY / GROUP SHOTS

When shooting a family of products, a group shot or the full content of packaging, please follow these directions:

Open the box carefully

When unpackaging the product, be careful of keeping the outside box in good condition. You might need to photograph it as part of the group shoot.

Prepare for the shoot

If necessary, tie the cables as shown on the images to the right. They should be tied in an organized way leaving cable connectors, microphones or other KSPs visible.

Plan the composition

Place the objects on your table and follow the suggestions on pg.15. Ensure that all emsignias/wordmarks are fully visible. Turning all objects in the same direction might help create an appealing composition.

Shooting angle

A top-down angle is usually the best approach for these kinds of shots. It will give depth to the image as well as allow flat objects (such as belt clips) to be shown at its best.

Note: User manual, warranty documents and stickers provided in the packaging are usually left out of these kinds of shots.

GOOD IMAGES





ACCESSORY GUIDELINES



ACCESSORIES

Accessories must be photographed following all the rules explained in the “DEVICE GUIDELINES” section (Pg. 10). Additional items to keep in mind:

- Position accessories to show Motorola Solutions logos and emsignias right side up, if possible.
- Pay special attention to cables, ensuring they don’t become the focus of the image. Ask yourself if the entire cable needs to be captured; does it add anything to the image.
- Determine if piece parts of the accessory should be included in the image (are they critical to the accessory?).

1. When photographing an accessory, a recommended approach is to take single shots of the most important details. Later, in post production you can combine them to compose one single image with the details as shown in this image.
2. This side shot is sharp and highlights the slim design of the product. The cable has been cropped, highlighting the design and functionality is the main purpose of the image.
3. This 3/4 R shot emphasizes the sturdy design, without any distractions.
4. The RSM was photographed with the Motorola logo upside down. The cable is occupying a significant part of the image but is not adding value to the picture.
5. The earpiece is messy and tangled. The function of each of the earpiece parts is unclear. Plus, the important details such as the connector are small, and get lost amongst the mess of cables.

GOOD IMAGE



BAD IMAGES



HEADSETS

When shooting headsets:

- Capture/position them how they would be worn.
- Accessory connector should be shown, but should not be the focus of the image.
- Avoid depicting messy cables. If cables are included in the image, they should be secondary to the headset, and not the focus of the image.
- Highlight elements such as inline microphones and push-to-talk buttons (in secondary, detailed images, not necessarily in the main image).
- Emsignia should be clearly visible and upright.

1. Lighting is soft, avoiding harsh reflections. Color and exposure are accurate.
- 2-3. The angle utilized in the pictures provides a better understanding of the product shape and design. Light is soft and all details are crisp.
4. Lighting is hard, creating strong contrast and impacting the true representation of color.
5. Exposure is off. The headset looks darker than it is and is lacking details in the shadows.

GOOD IMAGES



1



2



3

BAD IMAGES



4



5

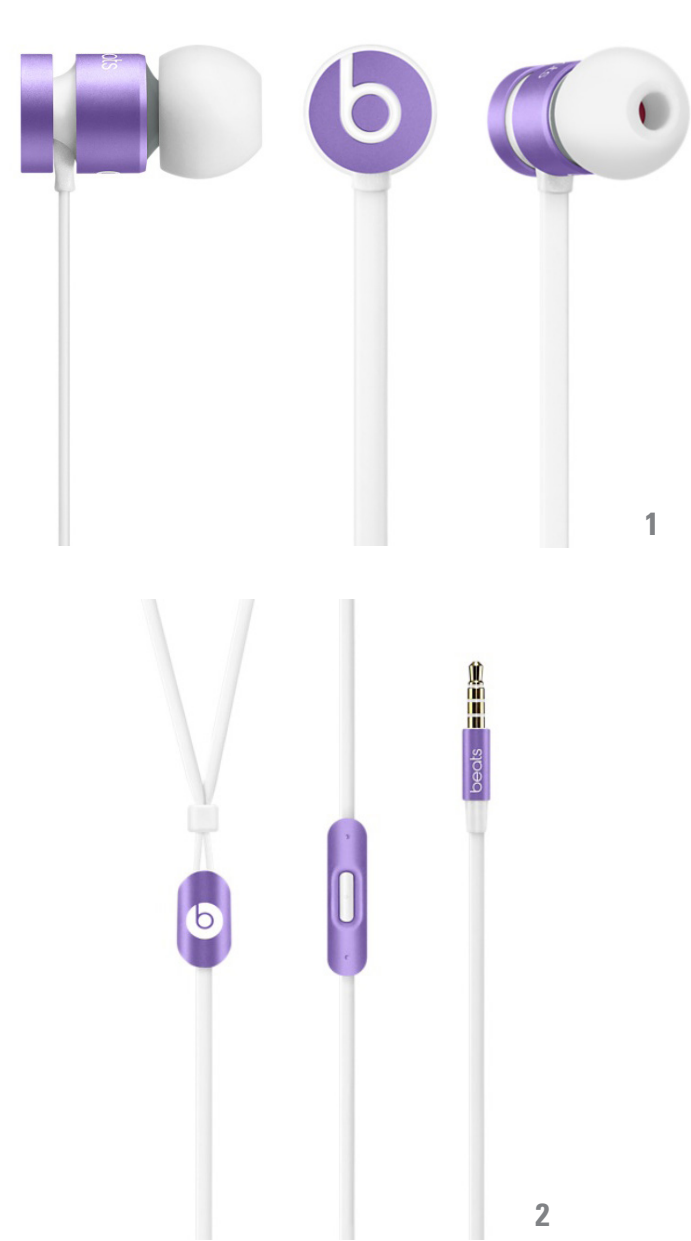
EARPIECES

Shooting earpieces, surveillance and other accessories with long cables:

- Minimize the cable and/or crop when necessary, to create a clean composition.
- Shoot earpieces that wrap around the ear how they are worn.
- Ensure the emsignia (batwing) is always upright if possible.
- Focus on the most important aspects of the earpiece (the entire earpiece does not need to be shown in every picture).
- Shoot key elements, or parts, of the earpiece (i.e. earbud, volume control, connector) separately to clearly capture the specific attributes of that element. In post-production, you can combine the key elements into a group shot.

1. This composition allows you to see the earbuds from different angles, highlighting the design and comfort factor.
2. This composition highlights all the other elements that are important details for users to know about the earpiece.
- 2-3. The cable in both images is occupying a lot of space, leaving little room for the important details. It is really hard to understand the different parts and their functionality.

GOOD IMAGE



BAD IMAGES



CHARGERS

When shooting chargers:

- Avoid showing cables as the main focal point of the image.
- Take pictures with the equipment (i.e. batteries and/or radios) in and out of the charger.
- Take close-up shots highlighting elements such as buttons, LEDs and connectors.
- In post-production, make sure that all black surfaces are completely black.
- Emsignia (batwing) should be always clearly visible and upright when possible.

GOOD IMAGES



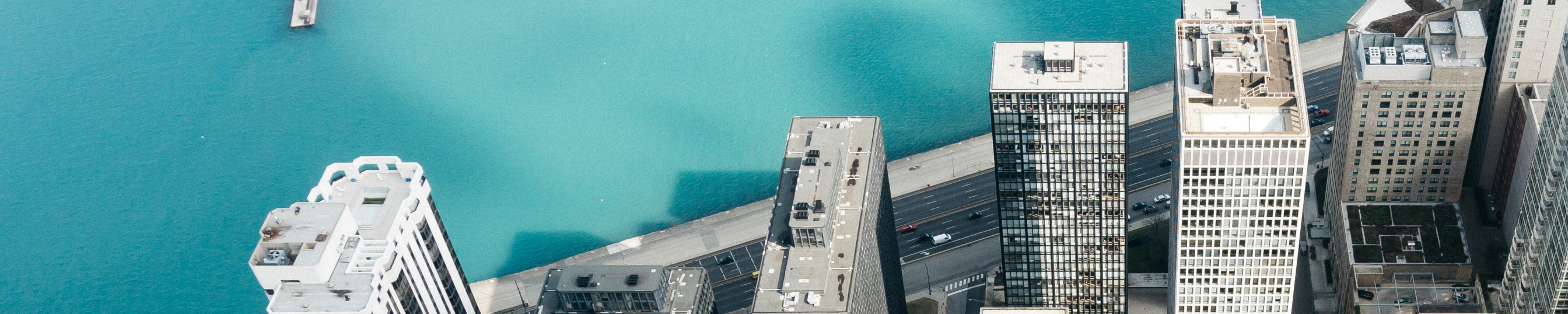
BATTERIES

When shooting batteries:

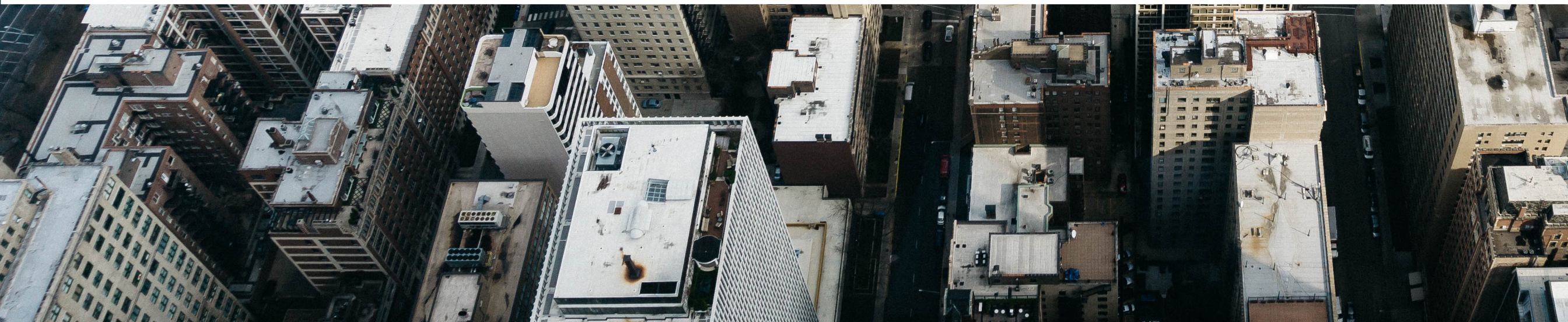
- When shooting left or right angles, ensure the battery looks flattering (i.e. slim versus fat).
- Shoot batteries at a consistent distance.
- Don't overexpose the batteries; capture color accurately.
- Use soft light to minimize texture.

GOOD IMAGES





PACKAGING GUIDELINES



PACKAGING

Packaging must be photographed following all the rules explained in the “DEVICE GUIDELINES” section (Pg. 10). Additional items to keep in mind:

- Avoid any possible light reflections that may interfere with the readability of the package design.
- Make sure that all straps and zippers are nicely positioned for the shoot.

GOOD IMAGES





EDITING & RETOUCHING

PHOTO EDITING

General Guidelines:

- All the editing must be done from the original RAW file.
- Always use a calibrated computer screen.
- Ensure there is no ambient light, as ambient light may affect the way you see colors. Please do all editing under a white light (around 5K).
- Do not overuse “sharpening”, “clarify” or “recovery” filters.
- Do not apply HDR or other effects.
- Ensure screenshots are dropped into the display correctly.
- When clipping/removing the background, be careful to create a nice, smooth product silhouette.

Color Corrections:

- Begin by color balancing the image. Make sure that white looks white and black is an exact representation of the black in the product.
- Always fix exposure, brightness, contrast and saturation. Use the actual product as a guide to achieve true color representation.
- Eliminate all color reflections from black surfaces. Bright areas must maintain a white tint instead of blue, red, or yellow tint.
- Eliminate all possible lens and perspective distortions. Make sure to create parallel lines and to respect the natural perspective of the scene.
- You may use the “Transform” tool, as necessary, to ensure a realistic look.

BEFORE



AFTER



PHOTO EDITING

Spot Retouching

- Using the zoom tool, examine the image in search of dust, speck particles, scratches and other imperfections on the product surface.
- May use “Dodge” and “Burn” tools to lighten or darken areas as needed.

BEFORE



AFTER



PHOTO RETOUCHING

Major Retouching

- When doing major adjustments to an image, make sure to do those adjustments in an independent layer.
- Always keep the original file as a protected layer.

Area Retouching

Sometimes a great image needs to be created by merging more than one layer of information. In this case, ensure seamless blending between layers.

- When retouching a mainly black product with some color spots, you may choose to create two versions of the same image.
 - First edit a copy of the image on black and white settings to optimize lights and shadows.
 - Second, edit another copy of the same image, enhancing those colored spots and matching the actual product color.
 - Then blend both layers to obtain the best of each layer to achieve an accurate look of light/shadows as well as all colors.

COMPOSITION OF AN IMAGE BY LAYERS



SCREENSHOTS REQUIREMENTS

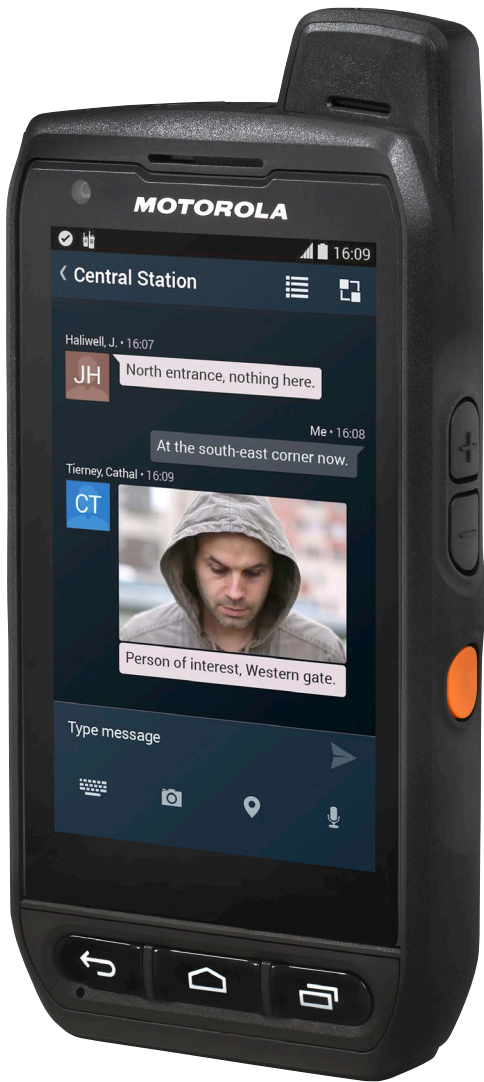
Screenshots must:

- Be clean and crisp.
- Show battery at full capacity.
- Show coverage at optimum.
- Reflect either the launch date, or a date further in the future (so as not to make the product/materials seem outdated by the time they are released).
- Complement the KSPs (i.e. show GPS or Bluetooth if they are key selling points for the radios).
- Not have an overwhelming amount of icons/notifications in the status bar. The goal is to keep the status bar clean, and focused on the KSPs.
- Not have any error notifications in the status bar.
- Be placed properly into the device image.

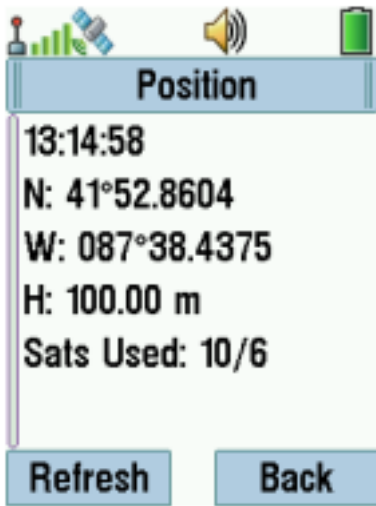
NOTE: All screenshots will be provided by the product manager for you to add in post production. You should never photograph a product with the display on, nor should you photograph a screen shot.

1. The screenshot is optimal: full signal strength, full battery and it's properly placed in the device display.
- 2-3. These images show full battery and signal strength. They also illustrate key selling points for the device (Bluetooth and GPS).
4. This image doesn't have optimum coverage (three green lines versus four). The battery is also not depicted as full; it should be all green and filled to the top.
5. The screenshot is not skewed properly to fit in the display. Image has a bluish tint.

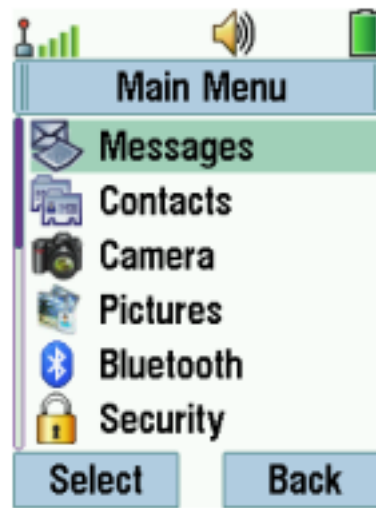
GOOD IMAGES



1



2



3

BAD IMAGES



4



5

SCREENSHOT PLACEMENT

The last step in the editing and retouching stage is the screenshot placement. Follow these recommendations to achieve the best results.

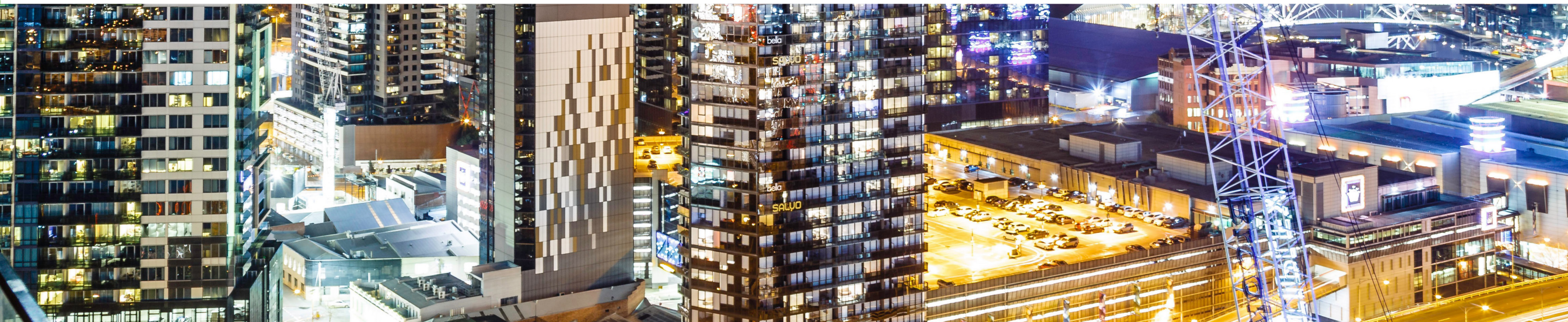
- Add the screenshot on an independent layer.
- Skew the screenshot to fit the perspective of the photo and the radio.
- Saturation, contrast, and brightness of the screenshot will need to be adjusted to blend with the radio lighting.
- Bear in mind that the actual screen displaying the image provided, is usually located under a protective glass. Therefore, a reflection effect on the “covering glass” is expected. See images on the right. The kind of reflection, faded (1) vs. sharp (2), is decided by the marketing manager.
- Also, the image is under glass and this means that for any angled shot, the image will be located deeper on the device. See image (3) on the right.

GOOD IMAGES





360° PHOTOGRAPHY



360° SPINS OVERVIEW

The purpose of 360 degree images is to create a spinning image that shows all details of the device. The nature of the spin is that, due to lighting changes, some features and details will be more prominent, while other details may fade and disappear. This is a natural occurrence and should not be edited.

360 degree spins are designed primarily for website use.

Technical Specifications

Images are needed in 2 sizes:

Small: 500 x 500 px

Large: 1500 x 1500 px

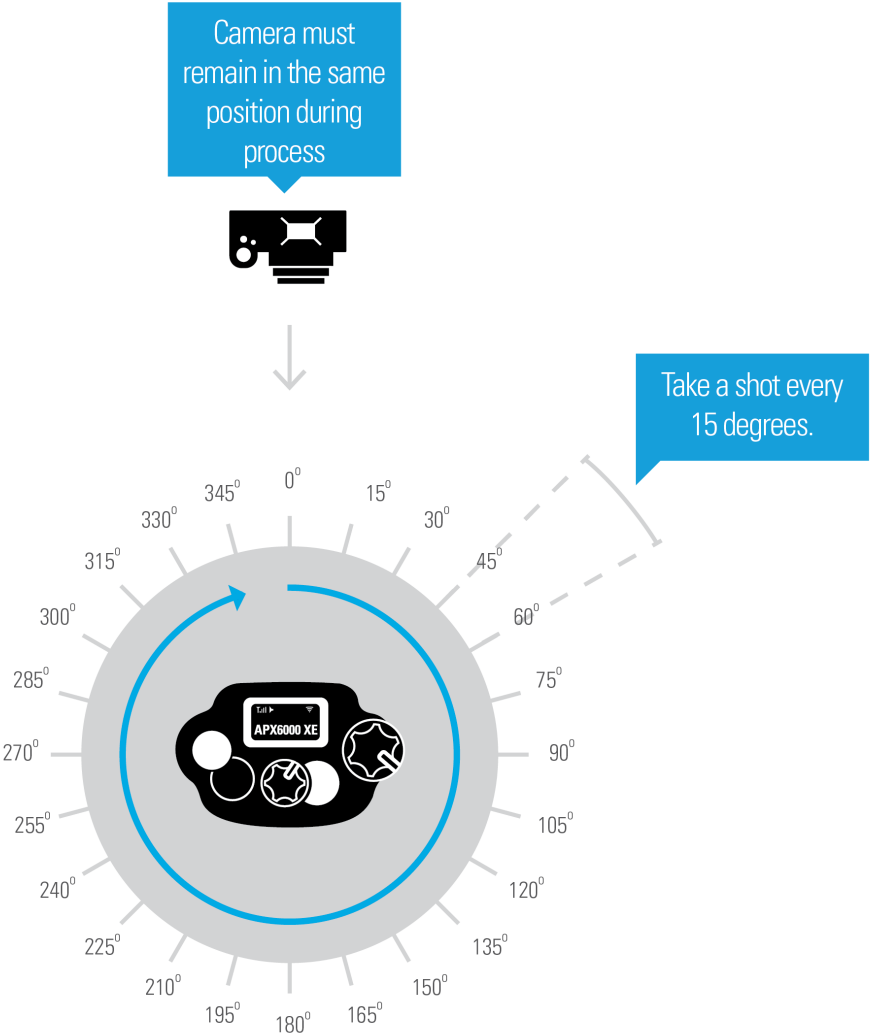
Create two folders. One named “Small” and another named “Large”. In the “Small” folder you should save all the 500 x 500 images. In the “Large” folder you should save all the 1500 x 1500 images.

Regardless the size or the folder, all 24 images should be named according to this structure:

01_01.jpg
01_02.jpg
01_03.jpg... through 24.

Use all lowercase with no spaces or special characters. Also, use an underscore to represent a space between words.

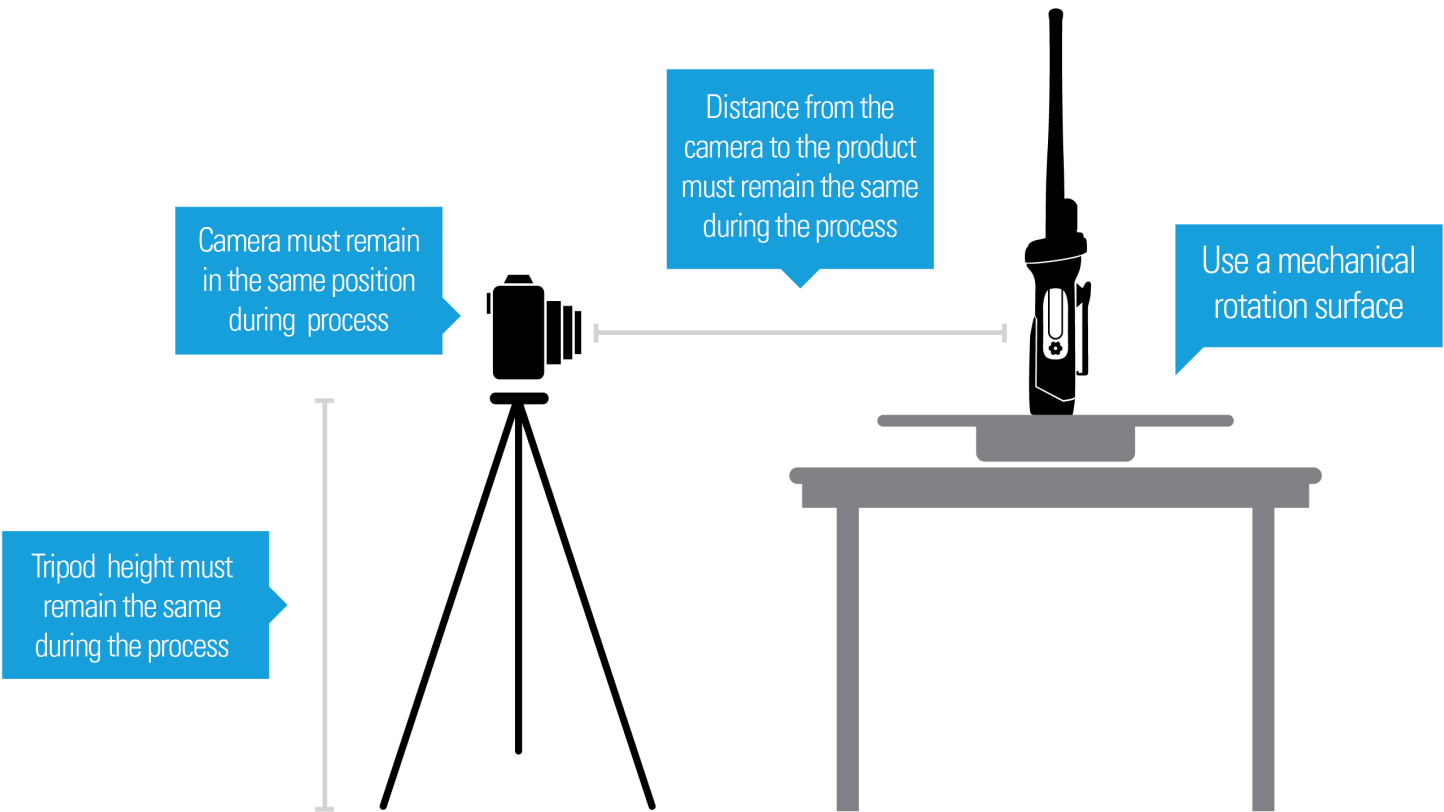
VIEW FROM THE TOP - 360° SHOTS



360 DEGREE IMAGES

- Follow the same rules established in the “DEVICE GUIDELINES” section (Pg. 10). Major retouching and editing is not encouraged for these images, as it would result in an unrealistic final product.
- A minimum of 24 shots are needed to ensure a smooth 360 spin.
- If your 360 spin includes more than one product, begin by creating a visually appealing composition that will hold still throughout the entire shot process.
- Make note of the light, camera settings and distance so they can be replicated for future product shoots, ensuring consistency in depiction of 360 degree spins on our website.
- Maintain a consistent distance from the camera to the object to ensure all images are the same size.
- Use the same focal length for all 360 degree shots.
- Set the product on a rotating table (motorized works best) to capture all angles without moving the camera or lighting set.
- Always use a tripod.

VIEW FROM THE SIDE - 360° SHOTS





SHOT LISTS



STANDARD RADIO SHOT LIST

The following shots are standard, and expected for every device:

- 1. Front
- 2. ¾ Front Right Angle
- 3. ¾ Front Left Angle
- 4. Back
- 5. Right Angle with clip
- 6. Left Angle with clip
- 7. Top View
- 8. Bottom View
- 9. ¾ Front Left Top
- 10. ¾ Front Right Top
- 11. R Side
- 12. L Side

GOOD IMAGES



STANDARD REMOTE SPEAKER MICROPHONE \ SHOT LIST

The guidelines for shooting remote speaker microphones should be similar to those for shooting radios and other devices. Unless otherwise specified, capture the following angles:

- Front
- ¾ Front Left Angle
- Back
- Side 1 (with PTT)
- Top

GOOD IMAGES

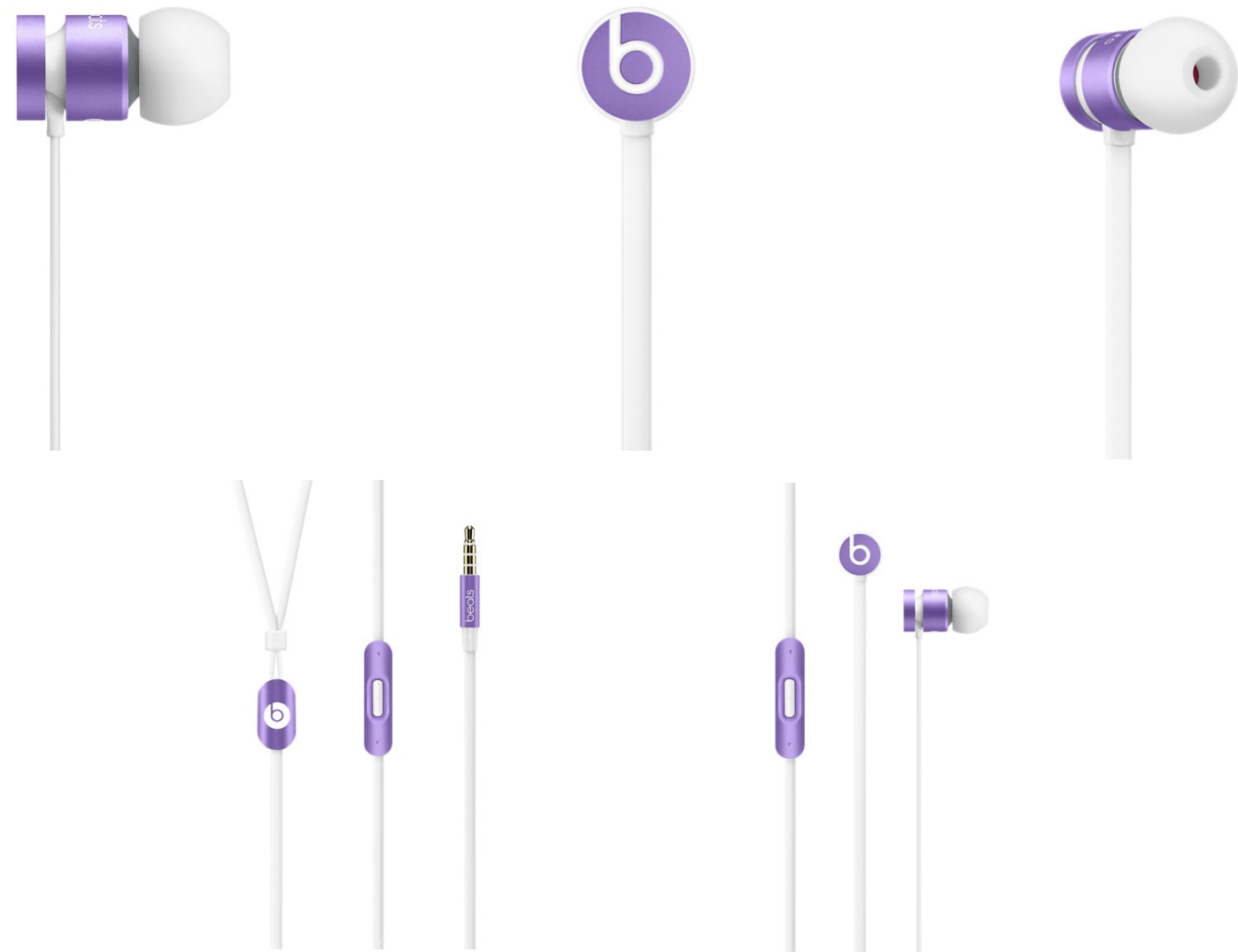


EARPIECE SHOT LIST

Angles for earpieces (not all may be required for each earpiece):

- Side of earbud
- Front/back of earbud
- ¾ right angle of earbud
- Volume / microphone, connector combined
- Composite image depicting close-up details of: microphone, volume toggle, connector.
- Composite image depicting close-up details of: volume toggle, back of earbud, side of earbud.

GOOD IMAGE



OPTIONAL DEVICE SHOT LIST

Additional shots may be requested depending on tier of launch, uniqueness of the device/ form factor, and device key selling points.

Additional shots should be requested by the marketing manager at the time a quote is requested.

Examples of additional shots may include, but are not limited to:

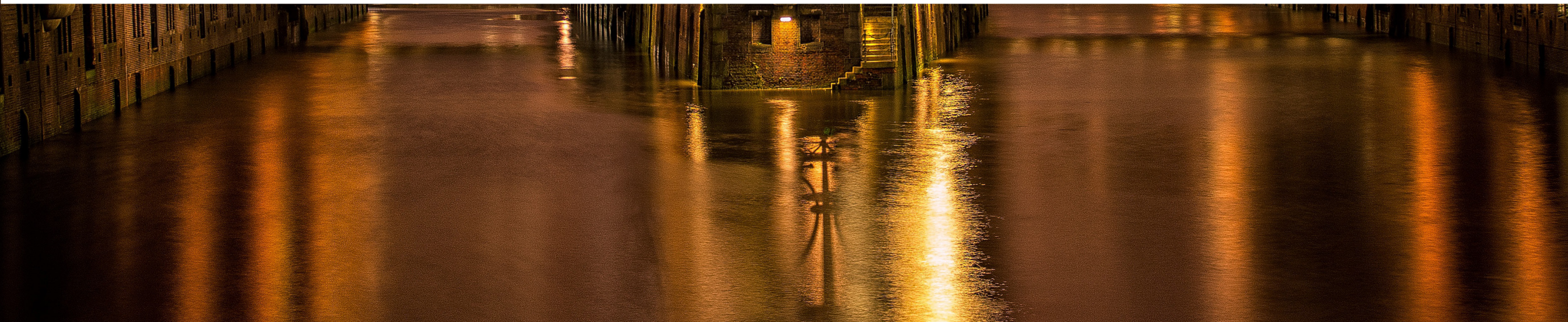
- 1. Back with Universal Clip
- 2. Family Shot
- 3. Front with RSM
- 4. Laying Flat Left & Right Angle
- 5. Device in Charger
- 6. Device in Vehicle Charger

GOOD IMAGES





COLLATERAL SAMPLES



The images to the right depict how product and accessory photography is leveraged in marketing collateral pieces.

THE **ST7000** DELIVERS UNCOMPROMISING AUDIO QUALITY AND COVERAGE IN A SMALL, ELEGANT AND DISCREET FORM FACTOR **IDEAL FOR CUSTOMER-FACING STAFF**

The ST7000 provides customer-facing staff and senior officers with an effortless communications tool that allows them to increase productivity and keep their focus on what matters most - the customer or the situation and not the device.





PHOTOGRAPHER CHECKLIST



BEFORE THE SHOOT

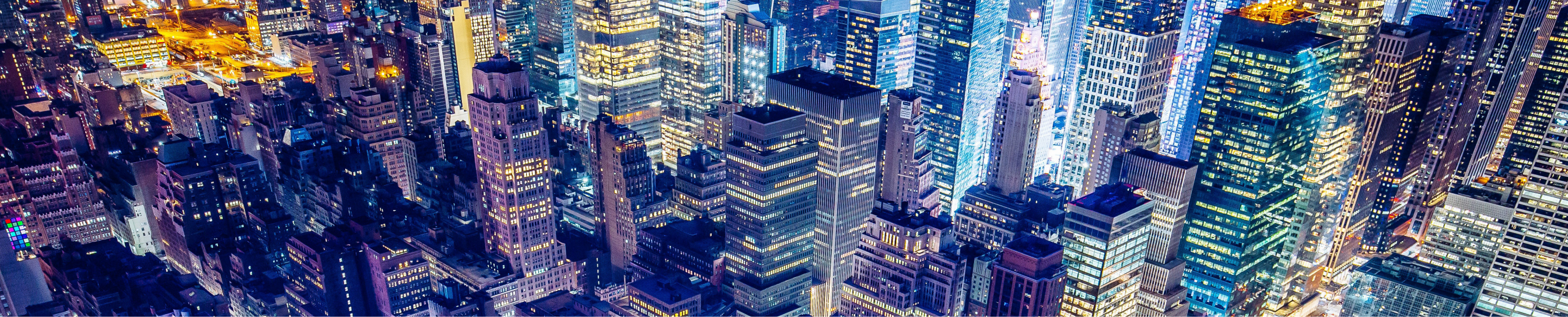
- ☐ Review instructions sent to you with each product.
- ☐ Clean and prepare the product for the shoot.
- ☐ Always shoot in RAW mode.
- ☐ Always use a white, black or gray background.
- ☐ Set the camera and the product. Keep record of distances, heights, position of camera to object, camera position, camera settings, lenses and light settings.

DURING THE SHOOT

- ☐ Use soft or bounced light.
- ☐ Avoid glares and harsh reflections.
- ☐ Check to ensure that all logos, emsignias, and wordmarks are upright, clearly visible and well illuminated.
- ☐ All images must be crisp and clear.
- ☐ Ensure you have shot all required/mandatory angles unless otherwise instructed.

AFTER THE SHOOT

- ☐ Ensure color accuracy with the product.
- ☐ Fix any lens and perspective distortions.
- ☐ Remove all dust and speck particles.
- ☐ Add the screen shots in post-production as required following instructions on in this document.
- ☐ Export and deliver files in high-res Tiff files following the requirements.



GLOSSARY



APERTURE

The opening in a photographic lens that admits the light. The higher the f-stop, the sharper the image and the lower the f-stop the softer the image gets.

BOKEH

The visual quality of the out-of-focus areas of a photographic image. This “effect” is usually achieved by using a wide f-stop.

CHROMA KEY

Is a technique where the principal object is filmed or photographed against a background consisting of a single color or a relatively narrow range of colours, usually blue or green because these colours are considered to be the furthest away from skin tone.

DEPTH OF FIELD

Also called focus range or effective focus range, is the distance between the nearest and farthest objects in a scene that appear acceptably sharp in an image.

GRAY CARD

A flat object of a neutral gray color that derives from a flat reflectance spectrum. It is used as a way to produce consistent image exposure and/or color in film and photography - use 60% black.

ISO

Measures the sensitivity of the image sensor. The lower the number the less sensitive your camera is to light and the finer the grain. Higher ISO settings are generally used in darker situations to get faster shutter speed, but it increases the grain of the image.

LIGHT METER

Device used to determine the proper exposure for a photograph.

PRO LENS

Pro lenses deliver better optical performance than lesser lenses, quicker and more accurate autofocus, and are more ruggedly built. They also offer the fastest maximum apertures, so you can use lower ISO settings or shoot in dimmer light.

WHITE BALANCE

Is a global adjustments of the lights in the image to ensure that the white color looks trully white and therefore all other colors reach their true hue.

WIDE ANGLE LENS

Refers to a lens whose focal length is substantially smaller than the focal length of a normal lens for a given film plane.

—
THANK YOU
—